

## **ANCIENT JERICHO - TELL ES-SULTAN**

### **From First Settlers to an Urban Site in Changing Situations**

**An international archaeological conference in Helsinki, Finland,  
on the 14th and 15th of June, 2019**

**Hosted by the Archaeological Society of Finland  
The House of Sciences and Letters, Kirkkokatu 6, 00170 Helsinki**

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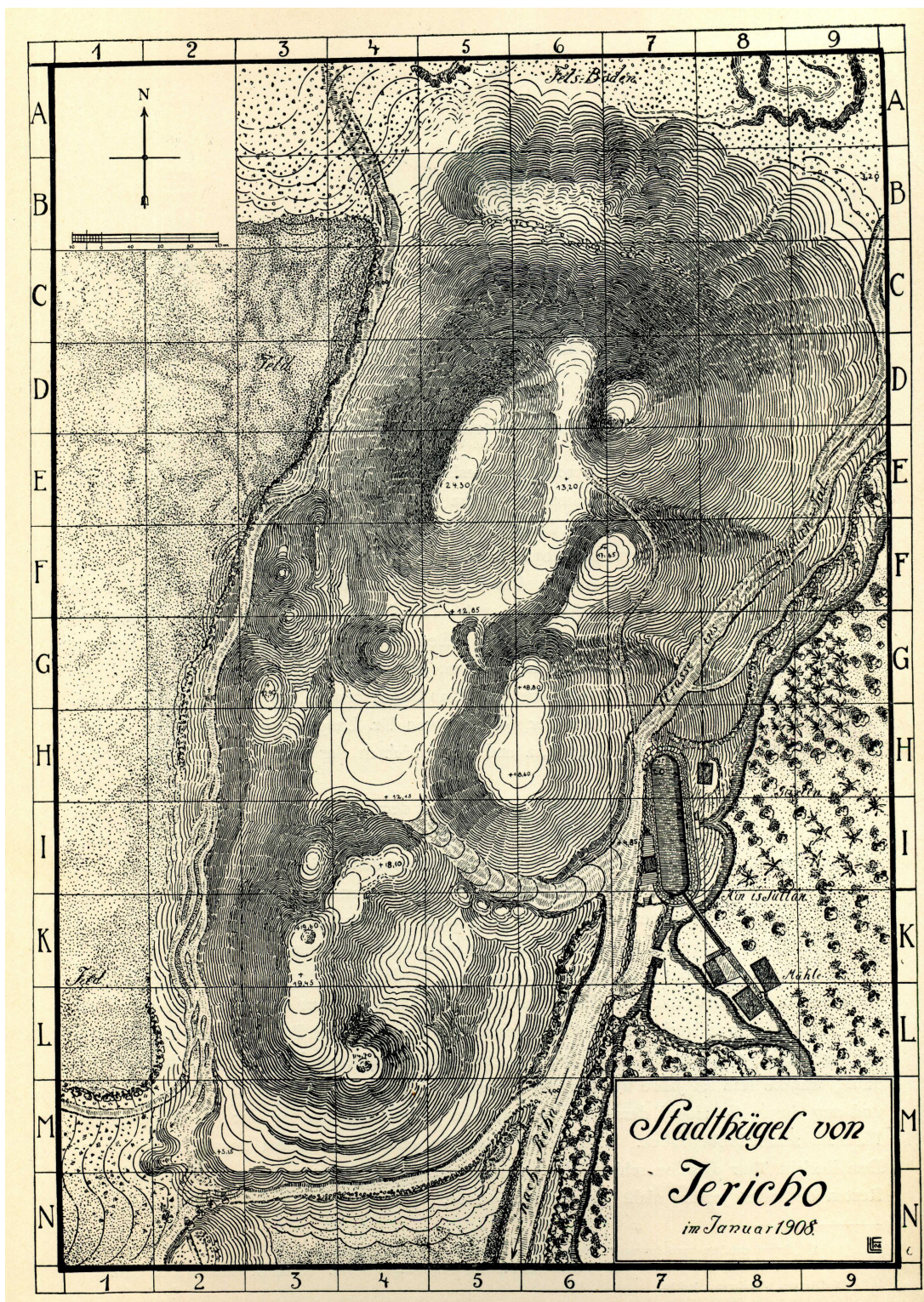
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*The cover image: Tell es-Sultan, Ancient Jericho, photographed in 1900, Library of Congress collection*

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Map from the Jericho excavation report by Sellin and Watzinger 1913



## Programme

### Friday 14th June

#### OPENING WORDS

**Lecture Hall 104, 1st floor**

9.00

Dr. Kristiina Mannermaa, Vice-Chairman  
Archaeological Society of Finland

Adj. Prof. Minna Silver, University of Oulu, Director of the Conference

#### SESSION 1. PLENARY: EXCAVATIONS AT TELL ES-SULTAN/ANCIENT JERICHO

**Lecture Hall 104, 1st floor**

9.15

Chair: Dr. Mahmoud Hawari, Former Director of the Palestinian Museum

*Past Excavations at Tell es-Sultan, Ancient Jericho,  
from the View of Archaeological Methods and Interpretations*, abstract p. 18

Adj. Prof. Minna Silver, University of Oulu

*My Experiences as an Area Supervisor in Kenyon's Excavation at Jericho in the 1950s*,  
abstract p. 12

Prof. Martin Biddle, University of Oxford

*The Joint Italian-Palestinian Excavations in Jericho*, abstract p. 8

Keynote: Prof. Lorenzo Nigro, University of Rome, La Sapienza

10.40 Coffee

#### SESSION 2. JERICHO AND THE NEOLITHIC NEAR EAST

**Lecture Hall 104, 1st floor**

11.00

Chair: Prof. Emeritus Milton Nuñez, University of Oulu

*Tell es-Sultan during the Neolithic - Major Cognitive Contribution to the Neolithic  
Revolution*, abstract p. 8.

Keynote: Prof. Lorenzo Nigro, University of Rome, La Sapienza

*Envisioning Göbekli Tepe by Virtual Reconstruction of the First Temples of the World*  
 Prof. Ahmet Denker, Istanbul Bilgi University, B. Gürbüz, Near East University, Mersin

12.15 Lunch

### **SESSION 3. JERICHO FROM THE NEOLITHIC TO THE METAL AGES**

13.30

Chair: Prof. Martin Biddle, University of Oxford

*What are the Colours of White Ware?*, abstract p. 16  
 Bonnie Nilhamn, MA, MSc, University of Utrecht

*Moats in the Fortifications of Jericho and Ancient Palestine*, abstract p. 17  
 Assoc. Prof. Dag Oredsson, University of Lund

### **SESSION 4. JERICHO IN THE EARLY BRONZE AGE**

**Lecture Hall 104, 1st floor**

14.30

Chair: Prof. Lorenzo Nigro, University of Rome, La Sapienza

*Estimating Population Size and Social Dynamics of Early Bronze I-III Jericho*,  
 abstract p. 14  
 Dr. Elisabetta Gallo, University of Rome, La Sapienza

*Tell es-Sultan's Trade and Connectivity in the Early Bronze II-III*, abstract p. 13  
 Dr. Chiara Fiaccavento, University of Rome, La Sapienza

15.45 Coffee

**16.00 A visit through the Senate square to the University library**

### **SESSION 5. JERICHO AND THE LEVANT IN THE INTERMEDIATE BRONZE AGE IN TRANSITION**

**Lecture Hall 505, 5th floor**

17.00

Chair: Adj. Prof. Minna Silver, University of Oulu

*Intermediate Bronze Age Tombs and Burials in Palestine and the Significance of Jericho*,  
 abstract p. 11

Keynote: Dr. Zvi Greenhut, Director of Publications, Israel Antiquities Authority

*Metallurgy at Tell es-Sultan/ancient Jericho: Continuity and Discontinuity between the Early and Middle Bronze Age*, abstract p. 16

Dr. Daria Montanari, University of Rome, La Sapienza

*Reinvigorated: Identity, Amorites, Jericho*, abstract p. 15

Dr. Madeline Lawson Pruitt, University of California - Berkeley

## **SESSION 6. POSTERS**

**Corridor, 5th floor**

18.30

*Outside the Cradle of Horticulture?*

*Olive Tree Cultivation during EBI II-III at Tell es-Sultan/Jericho*, abstract p. 21

Dr. Sharon Sabatini, University of Rome, La Sapienza

*Count on Jericho! Early Bronze Age Counting Tools at Tell es-Sultan/Jericho*, abstract p. 19

Ms. Gaia Cecconi, University of Rome, La Sapienza

*Eye on the Past: Archaeological Interpretation of the 1918 Jericho Oasis Aerial Photographs*, abstract p. 20

Mr. Pierfrancesco Izzo, University of Rome, La Sapienza

*Jericho Tour: Dissemination of Archaeological Heritage*

Mr. Michele de Marco, University of Rome, La Sapienza, abstract p. 19

*Composing with the Ancient: A Roof for Hisham's Palace*, abstract p. 21

Ms. Rachele Lomurno, Polytechnic University of Bari

## **SOCIAL EVENING (only for the registered persons)**

**Exhibition Hall 506, 5th floor**

19.00-20.00

## **Saturday 15th June**

## **SESSION 7. JERICHO IN THE BRONZE AND IRON AGES**

**Lecture Hall 104, 1st floor**

9.00

Chair: Adj.Prof. Dag Oredsson, University of Lund

*Tell es-Sultan in the Bronze and Iron Age*, abstract p. 9

Keynote: Prof. Lorenzo Nigro, University of Rome, La Sapienza

*Nomadic Pastoralists in Conflict with the Urban World: Amorites, Hyksos, Israelites, Arab Bedouins*, abstract p. 18  
Adj.Prof. Minna Silver, University of Oulu

10.15 Coffee

## **SESSION 8. SAVING ANCIENT JERICHO**

**Lecture Hall 104, 1st floor**

10.40

Chair: Prof. Ahmet Denker, Istanbul Bilgi University

*Hisham's Palace in Context: Survey and Excavations in the Hinterland of Khirbet al-Mafjar*, abstract p. 10

Keynote: Dr. Mahmoud Hawari, former Director of the Palestinian Museum

*The Jericho Oasis Archaeological Park: the Italian-Palestinian Cooperation for the Protection and Valorization of Archaeological Heritage*, abstract p. 13

Dr. Chiara Fiaccavento, University of Rome, La Sapienza

12.00 Lunch

## **SESSION 9. PLENARY: SAVING ANCIENT JERICHO**

**Lecture Hall 104, 1st floor**

13.10

*Panel Discussion: Excavation Methods, Protection, Preservation, Tourism*

Prof. Lorenzo Nigro, Dr. Chiara Fiaccavento, Adj.Prof. Minna Silver, Dr. Mahmoud Hawari, Prof. Martin Biddle, Skype connection to Prof. Salim Elwazani, Bowling Green University

**LEAVING FOR BERGVIK MANOR** ca. 15.00

## THE ABSTRACTS AND BIOS OF THE KEYNOTE SPEAKERS

### The Joint Italian-Palestinian Excavations in Jericho

**Prof. Lorenzo Nigro**, University of Rome, La Sapienza  
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**ABSTRACT:** When after the Oslo and Madrid agreements the Palestinian National Authority was established, it provided the Ministry of Tourism and Antiquities – Dept. of Archaeology and Cultural Heritage (MOTA-DACH). At that time, the Sapienza University of Rome was chosen as an ideal partner to start a new deal in the archaeology of Palestine. By contrast with an enduring colonial tradition, which foresaw a full demission of responsibility by means of the “excavation permit” given by the host country to the European or American digging institutions, a new project was set up at Tell es-Sultan, ancient Jericho, one of the most long-lived human settlements in the ancient Near East, based upon an “Agreement on cooperation”, with which responsibilities and commitment to investigate, protect and rehabilitate the site were shared. The new project started in 1997 and is still continuing (13 seasons on the field have been carried out), the joint team works together as a unique team, and it has been engaged in transforming what was an almost unintelligible ruin into a prominent archaeological site, concealing the memory of some major steps of the humankind, from the beginning of agriculture and animal breeding in the Neolithic (10,500-6000 BC), to the invention of modular architecture, the rise of the earliest city with the establishment of an urban model in the 3rd millennium BC. No other institution or country can boast such a continuous and successful cooperation as Sapienza and Italy in the Palestinian areas. The Jericho joint Italian-Palestinian Expedition has produced more than 100 scientific publication, has fully rehabilitated the archaeological site providing also a correct historical interpretation of its finds, free from any pre-conceiving and political or religious distortion. After two decades, the cooperation has become a model, and it has been expanded especially for the safeguard and protection of a heavy threatened Archaeological Heritage. With the publication of the Catalogue of the Archaeological sites of the Jericho Oasis (Rosapat 07, Rome 2011) a new step was accomplished involving the Municipality of Ariha and starting the Jericho Oasis Archaeological Park Project, which has rehabilitated and made suitable to tourist exploitation 13 main sites. In 2015 a rescue project, again founded upon an “Agreement of Cooperation” between the MOTA-DACH and Sapienza, started in Bethlehem to protect the many necropoleis inside and around this city, and to reconstruct its early history. Four reports about the necropolis of Khalet al-Jama’ and Jebel Daher and Bethlehem in antiquity have already been published. Moreover, a new joint research Project was also started on the site of Tell Abu Zarad, in the Province of Salfeet, which was a major city in Palestine during the Bronze and the Iron Ages, also known from ancient sources with the name of Teffah. Two seasons have already been carried out at Abu Zarad and a preliminary report was published in 2016. This last project aims at rescuing and valorizing another piece of the ancient history of the Country.

### Tell es-Sultan during the Neolithic - Major Cognitive Contribution to the Neolithic Revolution

**Prof. Lorenzo Nigro**, University of Rome, La Sapienza  
lorenzo.nigro@uniroma1.it

**ABSTRACT:** Pre-Pottery Neolithic Jericho is one of the most innovative and flourishing communities of the Fertile Crescent. Its achievements and realizations shed light not only on the adaptive capacities of the community, but also on the cognitive and ideological palimpsest which supported the growth of the earliest agro-pastoral sedentary society.





*Jericho excavations. Photo: 1928-1946 Library of Congress*

## **Tell es-Sultan in the Bronze and Iron Age**

**Prof. Lorenzo Nigro**, University of Rome La Sapienza  
lorenzo.nigro@uniroma1.it

**ABSTRACT:** Tell es-Sultan from the Bronze to the Iron Age envisages a peculiar urban experience, which with several transformations, stops and recovers bridges a time span of two millennia, showing some typical features of what is called secondary urbanism in the Southern Levant. Recent discoveries by the Italian-Palestinian Expedition have provided more insights into this phenomenon, also helping in defining it (what is a city and a palace in the Southern Levant?) and in fixing its history in relationship with the other regions of the Levant and Egypt.

**BIO:** Lorenzo Nigro, PhD, is Professor of Near Eastern and Phoenician Punic Archaeology in the Faculty of Letters, Dept. of Oriental Studies at Sapienza University of Rome. He is an archaeologist with 25 years of experience on the field in the Near East and the Mediterranean. Since 2002 he is the Director of Sapienza University Expedition to Motya, a Phoenician colony in Western Sicily, and of the Sapienza University Expedition to Palestine & Jordan (2004-2019), carrying on projects at the sites of Tell es-Sultan, (ancient Jericho), Tell Abu Zarad (ancient Tappuah), and Bethlehem in Palestine – in fruitful cooperation with the Ministry of Tourism and Antiquities since 1997 ([www.lasapienzatojericho.it](http://www.lasapienzatojericho.it)); and Khirbet al-Batraway, a 3rd millennium BC early city, and Rujum al-Jamous in Jordan ([www.lasapienzatojordan.it](http://www.lasapienzatojordan.it)). He also coordinated several programs for Cultural Heritage protection in Syria, Lebanon, Palestine and Jordan. His studies address Pre-Classical societies in the Levant and the Mediterranean ranging from architecture to metallurgy, from pottery to art, with a major focus on contextual archaeology, safeguard, as well as on historical and cultural synchronization and conceptualization of Levantine and Mediterranean civilizations as part of Humankind Cultural Heritage. He is among the highest ranked scholars in Levantine and Mediterranean Archaeology in Scopus and [www.academia.edu](http://www.academia.edu).



*Road to Jericho. Photo: 1900-1920, Library of Congress*

### **Hisham's Palace in Context: Survey and Excavations in the Hinterland of Khirbat al-Mafjar, Jericho**

**Dr. Mahmoud Hawari**, Bethlehem University  
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**ABSTRACT:** The Khirbat al-Mafjar Archaeological Project was initiated to achieve better understanding of 'Hisham's Palace' within the context of its cultural landscape and historical environment and the phenomenon of the Umayyad palaces in the Levant. Five seasons of landscape archaeological survey and excavations in the hinterland of the palace (2010-2014) have revealed a large enclosure wall surrounding extensive fertile lands to the east and north, two major aqueducts with two monumental bridges, a large reservoir and a water mill. The elucidation of the water management system that supplied the palace, its baths and agricultural estate provide context to Hisham's Palace, and thus changing the perception of the palace. It was not only a pleasure palace, but rather part of a large agricultural settlement. This conforms to a uniform template of numerous palatial complexes in the Levant which were built by the Umayyads, in the first half of the 8th century, at the centre of agricultural settlements aimed at generating revenues and expanding their political power into the periphery of urban centres.

**BIO:** Mahmoud Hawari obtained his MA and PhD degrees from the University of London. Hawari is currently teaching at Bethlehem University, and he is a former Director General of the Palestinian Museum in Birzeit. He was Lead Curator at the British Museum in London, and a Senior Research Associate at the University of Oxford. His primary research interests are in archaeology, Islamic art and architecture, and the cultural heritage of Palestine. He taught archaeology at Birzeit, al-Quds and Oxford universities. He worked on numerous international projects, including the assessment of sites nominated for the UNESCO World Heritage list. He has widely published in his field of specialisation.

## Intermediate Bronze Age Tombs and Burials in Palestine and the Significance of Jericho

**Dr. Zvi Greenhut**, Israel Antiquities Authority  
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**ABSTRACT:** Extensive Cemeteries from the Intermediate Bronze Age have been described as 'cities of the dead' and may have been central places for an agricultural and pastoral-nomad population over a long period of time. Intermediate Bronze Age tombs in Palestine were diverse, including shaft graves from various types, pits, cists, caves, tumuli and dolmens. The current study is concerned with these tombs and burials, lasting between ca. 2,500 to 2,000 BCE. The aim of the study is to summarize the IB Age tombs corpus in Palestine, to attempt to classify them according to architectural characteristics, to discuss the anthropological material retrieved, and to examine the Jericho tombs against this general background. One of the largest Intermediate Bronze Age burial grounds was discovered at Jericho. The tombs fall into defined groups, that was difficult to put in chronological sequence or other relationship. Kenyon, however, explained their differentiation as evidence of tribal groups, living side by side on the tell and the surrounding slopes, but each retaining its own individual burial customs. The typical burial at Jericho is a single interment, but some were double. Palumbo claims that the burial practice expresses social hierarchy. According to Shay, the main criterion for social differentiation is the amount of labor invested in preparing the tombs.

**BIO:** Zvi Greenhut, MA, PhD, is the Head of the Publication Department of the Israel Antiquities Authority. He is an archaeologist with 32 years of experience in the field of the archaeology of the Iron Age, the Intermediate Bronze Age, and the archaeology of Jerusalem in the Levant. While serving as Jerusalem District Archaeologist, he directed several digs in the city, including the Chaiaphas Tomb in 1990. He has co-directed the Iron Age excavations at Mozza between Jerusalem and Tel Aviv during 1993, 2002, 2003 (published in IAA Reports 39, 2009), and at the Intermediate Bronze and Middle Bronze Age cemetery in the Jerusalem Holyland Hotel Compound during 2006-2008.



*David Roberts' painting illustrating a Bedouin camp outside Jericho in the 1830s*

## THE ABSTRACTS AND BIOS OF THE SPEAKERS



*Kathleen Kenyon giving instructions to workers at Jericho in the 1950s*

*Photo: courtesy by Stuart Laidlaw, University College London*

### My Experiences as an Area Supervisor in Kenyon's Excavation at Jericho in the 1950s

**Prof. emeritus Martin Biddle**, University of Oxford

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**ABSTRACT:** The paper will deal briefly with BW images of Martin Biddle's own experience of working for Kathleen Kenyon in 1957-58 in Jericho and of close observation of her working methods in general, and particularly the drawing of sections. Kenyon allowed Biddle somewhat exceptionally (because of his own previous experience, he supposes) to draw his own sections of Site H, the Middle Bronze Age gate on the east side of the tell, which he looked after for three months (October 1957 to January 1958) during special leave from the British Army in which he was then doing his National Service.

**BIO:** Martin Biddle is Professor Emeritus of Medieval Archaeology, University of Oxford; Honorary Fellow of Pembroke College, Cambridge; Emeritus Fellow of Hertford College, Oxford; Fellow of the British Academy; Fellow of the Society of Antiquaries of London; Director of the Winchester Research Unit; editor of *Winchester Studies* (Oxford University Press), nine volumes and continuing. Excavations at sites such as King Henry VIII's Nonsuch Palace, 1959; Winchester, 1961-71; Repton, Anglo-Saxon monastic site and Viking winter camp 1974-88; St Albans Abbey, chapter house and cloisters, 1978 and later; Qasr Ibrim, Nubia, 1988 and later; survey and investigation of the Tomb of Christ in the Church of the Holy Sepulchre, Jerusalem, 1989 and later.

### Envisioning Göbekli Tepe by Virtual Reconstruction of the First Temples of the World

**Prof. Ahmet Denker**<sup>1,2</sup>, Burçin Gürbüz<sup>1</sup>

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**ABSTRACT:** Predating the Neolithic Tower of Jericho by over 1000 years and Stonehenge by over 6000 years Göbekli Tepe (= belly hill) has opened a new chapter in the book of civilization. It is a man-made hill from 10<sup>th</sup> millennium B.C., i.e. just after the Younger Dryas. It was a far-reaching achievement for

humankind to build such a site at such an early epoch. The chapter that Göbekli Tepe adds to the history of humanity is crucial since it is about transition from hunter-gatherers to food producing societies. In this work, Göbekli Tepe is reconstructed in 3D in a virtual reality environment which displays Göbekli Tepe both as a beautiful and significant site. As it was the first known temple in the world and the "birthplace" of religion, it carries with itself a certain mysticism that sparks many questions and thoughts which are reflected in this work.

**BIO:** Ahmet Denker is Professor in Electrical Engineering and has also served as Dean of Faculty at Istanbul Bilgi University. Denker has specialized in digital modeling, virtual reconstruction and 3D printing. He has worked on archaeological sites such as Ephesos in Turkey as well as at underwater archaeological sites in Turkey. Denker has produced several publications on virtual models of ancient Palmyra, a World Heritage Site, in Syria.

### **Tell es-Sultan's Trade and Connectivity in the Early Bronze II-III**

**Dr. Chiara Fiaccavento**, University of Rome, La Sapienza

**ABSTRACT:** Tell es-Sultan/ancient Jericho belongs to the earliest cities that arose in the Southern Levant at the end of 4th/beginning of the 3rd millennium BC. Starting from a village dimension in the Early Bronze I, Jericho develops a central role in the region with the emergence of a structured elite power during the Early Bronze II-III, testified by the erection of massive city-walls surrounding the tell, by distinct funerary goods in the necropolis, and by the presence of a centralized institution towering the newborn city, Palace G. Inside it, the evidence of cultural interconnections with Egypt, and commercial exchanges with peer cities of the region, as well as the presence of counting systems and the gathering of prestige goods attest the significance of commerce in the rise of Early Bronze Age urban societies.



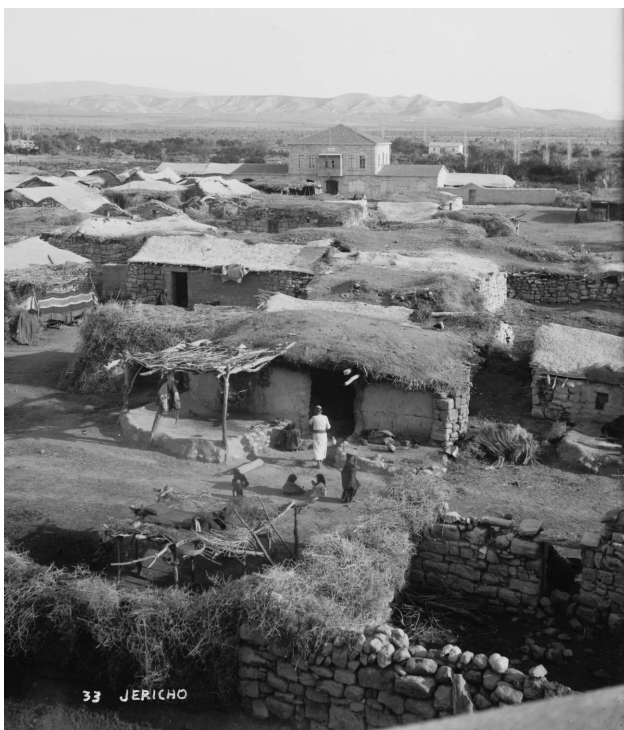
*The plain of Jericho photographed in 1895. Photo: Library of Congress*

### **The Jericho Oasis Archaeological Park: the Italian-Palestinian Cooperation for the Protection and Valorization of Archaeological Heritage**

**Dr. Chiara Fiaccavento**, University of Rome La Sapienza

**ABSTRACT:** In April 2015, the Italian Cooperation, Sapienza University of Rome and the Palestinian Ministry of Tourism and Antiquities started the Project "Oasis of Jericho" aimed at the implementation of the Jericho Oasis Archaeological Park (JOAP) by means of training of local personnel as tourist guides, specialized restorers and workers for the maintenance of 13 selected archaeological, historical, cultural, naturalistic, and religious sites in the Jericho Oasis, with the cooperation of the Ariha Municipality.

**BIO: Chiara Fiaccavento** has received BA, MA and PhD in Near Eastern Archaeology at the Sapienza University of Rome. She is the Publications Chair of the Palestine Exploration Fund, London. Her work focuses mainly on the pottery of Pre-Classical Palestine, ranging from the Early Bronze to the Iron Age. She is an archaeologist with a wide field experience in Italy (Motya, Sicily), Palestine (Tell es-Sultan, Jerusalem, Tell Sheikh Abu Zarad), Jordan (Khirbet al-Batrawy, Mission Haute Jordanie) and Syria (Qarassa). She has collaborated with the Ecole Biblique et Archéologique Française at Jerusalem and with the Centre National de la Recherche Scientifique in Syria and Jordan. She participated in the rescue program “Oasis of Jericho” (JOAP-Jericho Oasis Archaeological Park) carried out by Sapienza with the Palestinian Ministry of Tourism and Antiquities and the UNESCO, funded by the Italian Ministry of Foreign Affairs and International Cooperation, and in the national research project (PRIN), with a study of the destructions in the Iron Age of the Southern Levant. She is currently part of the Collections Services of Science and Industry Museum in Manchester as Documentation Officer.



*Houses and people at Jericho in 1933. Photo: Library of Congress*

## **Estimating Population Size and Social Dynamics of Early Bronze I-III Jericho**

**Dr. Elisabetta Gallo**, University of Rome, La Sapienza  
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**ABSTRACT:** Tell es-Sultan/Jericho, is one of the Southern Levantine sites with the deepest stratigraphy for the Pre-Classical ages, with an uninterrupted occupational sequence for the Early Bronze Age. The aim of this study is to derive a realistic population estimate for Jericho, focusing the analysis on the domestic quarter excavated in the northern *plateau* of the tell. The archaeological contexts of the northern domestic quarter provide a rich set of data useful to establish an estimate of the population who lived in the residential neighbourhoods of Jericho, and finally to highlight a demographic trend which followed the development of the site from the Early Bronze I village up to the Early Bronze II-III fortified city.



**BIO:** Elisabetta Gallo has MA and PhD in Near Eastern Archaeology. She is a researcher at the Sapienza University of Rome. Central themes of her research are the chronology and the comparative archaeology of the Near East and the Mediterranean. Gallo is a skilled field archaeologist, and since 2004 she is a member of archaeological expeditions of Sapienza University at Motya (Sicily), Tell es-Sultan/Jericho (Palestine), and Khirbet al-Batrawy (Jordan), and since 2015 she is the field director of the expedition to Khirbet al-Batrawy. She is involved in the study of the stratigraphy of Tell es-Sultan/Jericho and Khirbet al-Batrawy. She has published studies focusing on the Early Bronze Age Southern Levant (<https://uniroma1.academia.edu/ElisabettaGallo>).

### **Reinvigorated: Identity, Amorites, Jericho**

**Dr. Madeline Lawson Pruitt**, University of California, Berkeley  
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**ABSTRACT:** Recent excavations have reinvigorated Jericho's rich history of archaeological investigation. Recently developed holistic, analytical, and process-oriented approaches to cultural identity can complement such efforts. The Self Other relational paradigm presents a new understanding of cultural identity and a tool for interpreting it from historical evidence that is explicitly grounded in identity processes. Jericho is renowned for its role in the dialogue about the singularly complex case of Amorite identity, which is at an impasse over basic questions. The triangular dagger evidence demonstrates that this new approach to the archaeology of cultural identity can address such questions and bring the grounding that can support consensus in the field.

**BIO:** Madeline Lawson Pruitt (Ph.D., University of California – Berkeley) is a field archaeologist specializing in identity studies. A former administrative management professional, Dr. Pruitt draws upon her background in organizational management and healthcare to consider material evidence from a cross-disciplinary perspective. Her field experience includes work in the southwestern U.S. as well as Israel (Tel Rehov, Tel Gezer, and Ashkelon); she is currently on staff with the Tel Hadid Expedition in Israel and the Ban Qala Project in Kurdistan/Iraq.



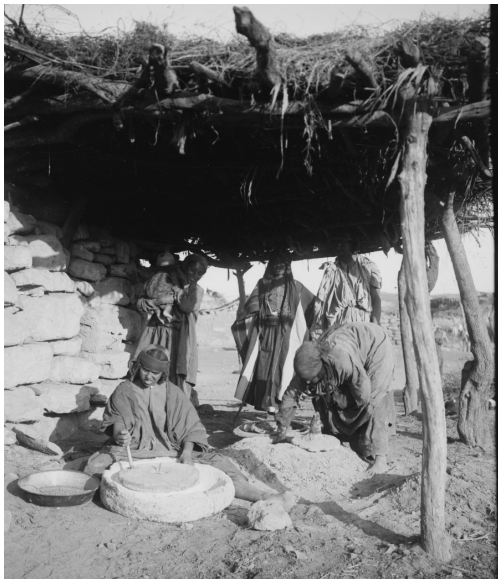
*Ain es-Sultan, Elisha's Fountain. Photo: 1900, Library of Congress*

## Metallurgy at Tell es-Sultan/Ancient Jericho: Continuity and Discontinuity between the Early and Middle Bronze Age

Dr. Daria Montanari, University of Rome La Sapienza

**ABSTRACT:** The spread of metal between 4<sup>th</sup> and 3<sup>rd</sup> millennium BC marks a socio-economic transformation of the Southern Levant. The site of Tell es-Sultan/ancient Jericho offers the opportunity to observe the diffusion of copper, during the 4<sup>th</sup> millennium BC, and the copper alloy, during the late 3<sup>rd</sup> millennium BC. This paper provides an overview of metal items and weapons in their original contexts, in settlement and necropolis, in a diachronic perspective, and their social significance across the Early and the Middle Bronze Age. Moreover, the analyses of recent studies and discoveries, suggests that Jericho could represents a secondary smelting activities site and a crossroad within exchange network of metal trade during the Early and Middle Bronze Ages.

**BIO:** Dr. Daria Montanari received her doctorate in Ancient Near Eastern Archaeology and Art History from Sapienza University of Rome in 2014. She is currently curator of the Museum of the Near East, Egypt and the Mediterranean of Sapienza University of Rome, and the editorial coordinator of the journal *Vicino Oriente*. Since 2004 she has held the role of field supervisor, and finds registrar of the archaeological expeditions of Sapienza University at Motya (Italy), Khirbet al-Batrawy (Jordan), and Tell es-Sultan (Palestine), as well as acting as field director of the Italian-Palestinian expedition to Bethlehem (necropolis of Khalet al-Jam'a, Jebel Daher, Bardhaa and el-Atan) since 2015.



*People of Jericho. Photo: 1900-1920, Library of Congress*

## What are the Colours of White Ware?

Bonnie Nilhamn, MA, MSc, University of Utrecht  
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**ABSTRACT:** Is this a tricky question, you may wonder. But no. In this paper we will discuss the matter that we are too easy biased to accept a certain view and interpretation of objects. Late Neolithic Near Eastern White ware has been found throughout the whole Near East: Iran, Iraq, Turkey Syria, Lebanon, Israel,

Palestinian territories and Jordan. Painted plaster has also been found throughout the same regions. Perhaps the most famous plastered and painted objects are the plastered human skulls found in Jericho. Painted White ware, however, has so far only been attested on Syrian and Lebanese sites. I would like to stress “*so far*” as based on both the experiments of modern plaster and archaeometric research (X-Ray Fluorescence, mineralogical and chemical residue analysis and technical imaging) on White ware from Tell Sabi Abyad Syria how easy it is to miss the intriguing pigments.

**BIO:** Bonnie Nilhamn has studied Assyriology and Near Eastern Archaeology (MA) at Uppsala University, Sweden, and Carsten Niebuhr Institute, Denmark. She also has MSc in Geoscience/Archaeometry, VU University Amsterdam, the Netherlands. Since 2001 she has been active as (geo-)archaeologist and independent scholar. Her previous archaeological fieldworks includes sites in Syria, Turkey and Egypt. Besides contract work in archaeology and museum-management she also holds a permanent position at Utrecht University as OSH-manager.



*The walls of Jericho. Photo: 1898-1914, Library of Congress*

## **Moats in the Fortifications of Jericho and Ancient Palestine**

**Assoc. Prof. Dag Oredsson**, University of Lund  
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**ABSTRACT:** In my published in-depth study of moats as a part of fortifications in Palestine from prehistoric times until the end of the Iron Age, I tried to create a useful classification for the future studies of these often neglected creations. I proposed a relation between the shape of a moat and its function. This function was not always defensive, since a moat could also protect a site against floods and be used as a quarry or a borrow-pit for other constructional enterprises. Moats in Palestine were usually not water-filled. In my presentation I will summarize my results, with a special focus on the moats at Jericho. I will also make a limited update of the state of moat research since my publication almost 20 years ago.

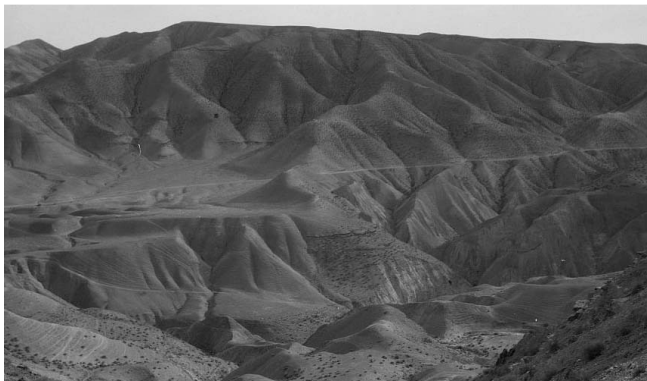
**BIO:** Dag Oredsson is an Ass. Professor in the Old Testament at the Centre for Theology and Religious Studies at Lund University, Sweden. In 2000 he earned a Doctoral Degree on his study on *Moats in Ancient Palestine* and has since then held different positions in Uppsala, Stockholm, Linköping and Umeå (all in Sweden); and most recently at Tumbani University in Makumira, Tanzania. After taking part in the excavations at Tel Yoqneam and Tel Naami, he acted as Area Supervisor at the joint Tel Aviv University

and BSAJ project at Tel Jezreel in the 1990s. Besides focusing on fortifications, he has among other issues looked at historical matters concerning the reign of King David and the development in the 7th century Jerusalem.

### **The Past Archaeological Explorations at Tell es-Sultan from the View of Archaeological Methods and Interpretations**

**Adj. Prof. Minna Silver**, University of Oulu  
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**ABSTRACT:** Tell es-Sultan, ancient Jericho, has been the target of archaeological exploration starting from the 1868 soundings by Charles Warren, the mapping of the topography by Claude Conder and the survey of 1894 by Frederick Bliss from the Palestine Exploration Fund. These studies were followed by an Austro-German team led by Ernst Selling and Carl Watzinger in 1907-1909 and identifying layers from prehistory to Muslim graves. The British School of Archaeology in Jerusalem excavated the site under John Garstang in 1930-1936 and continued under Kathleen Kenyon in 1952-1958. All the early missions tried to identify evidence from Joshua's biblical battles. Kenyon's excavations reached a large international audience, when surprisingly early development of the site was realized. Beside the evidence of the Neolithic Revolution, Jericho became the example site of early urban development, first radiocarbon datings and the developed application of the stratigraphic excavation method. The paper focuses on Jericho as the laboratory of methodological developments and interpretations in Archaeology to the end of the 1950s.



*A wilderness road to Jericho through the Jordan Valley. Photo: 1920, Library of Congress*

### **Nomadic Pastoralists in Conflict with the Urban World: Amorites, Hyksos, Israelites, Arab Bedouins**

**Adj. Prof. Minna Silver**, University of Oulu  
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**ABSTRACT:** "The pastoralist's relation to settled agriculturalists is like a happy marriage: the nomad cannot stand the farmer but cannot live without him." The Sumerian story called the Marriage of Martu, the Amorite, already illustrated a similar view in the 3rd millennium B.C. Kenyon's Amorite hypothesis describes the invading nomads to Jericho as a symptom of the larger conflict taking place in the Near East in the end of the Early Bronze Age. A conflict between steppic people with town dwellers can also be seen in the Biblical narratives in relation to Jericho. This paper will address the relations of pastoral nomads with Jericho taking into account the history, tradition, archaeology and ethnography of the site. The role of such groups as the Amorites, Hyksos, Israelites and Arab Bedouins will be discussed in the case of Jericho.

**BIO:** Minna Silver (former Lönnqvist) is Adj.Prof. in Near Eastern Archaeology at the University of Oulu, Finland. She received her PhD in Archaeology with the thesis *Between Nomadism and Sedentism: Amorites from a Contextual Perspective of Archaeology* from the University of Helsinki, Finland, in 2000, and earlier on she had completed her MA thesis on Kathleen Kenyon's Jericho excavations at the same university in 1986. She has excavated in the Near East and Greece beside Finland. Her post-doctoral project SYGIS surveyed and mapped the largely unexplored area of Jebel Bishri, the so-called mountain of the Amorites, between the Syrian Desert and the Euphrates in Syria in 1999/2000-2010. She has been a tenure track professor in Archaeology in the Tigris region at the University of Mardin in Turkey in 2014-2015/2016. Silver has a GIS expert certificate and has authored or co-authored several scientific publications on archaeology, cultural heritage in general, remote-sensing, GIS and 3D modeling. She is a UNESCO expert on Syria, executive board member of CIPA Heritage Documentation under ISPRS and ICOMOS, Finnish representative to ICORP and has been President of ICOMOS Finland.

## THE ABSTRACTS AND BIOS OF THE POSTER PRODUCERS

### Count on Jericho! Early Bronze Age Counting Tools at Tell es-Sultan/Jericho

**Gaia Cecconi**, University of Rome, La Sapienza  
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**ABSTRACT:** The aim of this poster is to analyze the appearance and use of counting tools (tokens, calculi and pierced shells) at Tell es-Sultan/Jericho during the Early Bronze Age, compared with the contemporaneous frame of the Southern Levant. This study is part of a PhD project (supervised by Prof. Lorenzo Nigro) on the development of calculation and counting ways in the Southern Levant during the Early Bronze Age in order to understand the administrative systems in this peripheral region of the Ancient Near East. During the Early Bronze Age several flourishing centers have developed in the Southern Levant, such as Tell es-Sultan/Jericho, Tell el-Mutesellim/Megiddo or Tell el-Far'ah North, which controlled the surrounding territories and numerous trade routes. Such a development must necessarily require a central management systems of community goods, although written texts or archives have not been found. Except for the few quotations made by D. Schmandt-Besserat, most of the attestations of tokens come from excavation contexts dating between the seventh and fourth millennium BC. Although, several counting tools were recently identified in Beth Shean, Tell es-Sa'idiyeh, Tell es-Sultan / Jericho and Khirbet al-Batrawy, leading us to think that counting tools can be attested in the Southern Levant from the Early Bronze Age.

**BIO:** Gaia Cecconi is currently a PhD student in Near Eastern Archaeology at the University of Rome La Sapienza, with a thesis on counting tools in the Southern Levant during the Early Bronze Age (Coordinator: prof. F. Pinnock, tutor: prof. L. Nigro). She is a member of the Archaeological Expeditions to Palestine (Jericho/Tell es-Sultan, Betlemme, Abu Zarad, <http://www.lasapienzatojericho.it/>) and Jordan (Khirbet al-Batrawy ) and in Mozia (<http://www.lasapienzamozia.it/>). She collaborates also with the editorial boards of the journal *Vicino Oriente* (<http://www.journal-vo.it/>) and the series *ROSAPAT*. In the last three years she has worked at the Museum of the Near East, Egypt and Mediterranean Sea at the University of Rome La Sapienza (<http://www.lasapienzatojericho.it/Museo/Home.php>), directed by prof. L. Nigro.

### Jericho Tour: Dissemination of Archeological Heritage

**Michele De Marco**, University of Rome, La Sapienza  
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**ABSTRACT:** Jericho Tour aims to offer a new way to promote the landscape and the archaeological heritage of the site of Tell es-Sultan (ancient Jericho). The principal target of this project is to increase the quality of documentation for enhancing site interpretation for cultural tourism, education and research;

moreover the purpose is to enable the dissemination of archaeological heritage of the site also to people with disabilities or to those who cannot physically visit the site. The tour is realized from photogrammetry, and the final result will be the application and the use of game-engine that provides the possibility to retrieve a realistic 3D model fully navigational with a virtual panel that will compare, when the virtual tourist visualizes the area of interest or flies over the site with a Virtual Observatory (VO).

**BIO:** Michele De Marco has received MA in Ancient Near Eastern Archaeology at the “Sapienza” University of Rome with a thesis titled *Archaeological Data in Context: GIS and Virtual Reality in Jericho*. He is a member of the staff of the “Sapienza” Archaeological Excavations, directed by Prof. Lorenzo Nigro. He has been in Motya (Italy) since 2010 being responsible for architectural remains. He has worked at Jericho/Tell es-Sultan since 2011 being responsible for paleobotanical and archaeozoological/anthropological remains, has acted as a photographer, and from 2017 he has been an archaeological site manager and in 2019 a field director. At Khirbat al-Batrawy in Jordan he has been responsible for paleobotanical and archaeozoological/anthropological remains and has served as a photographer since 2015. He manages the websites of the archaeological expeditions and MVOEM (museum). He takes part in the IT-COOP Project “Jericho Oasis Archaeological Park” as an archaeologist and IT expert.



*Tourists on Tell es-Sultan in the 1980s. Photo: Kenneth Lönqvist*

## **Eye on the Past: Archaeological Interpretation of the 1918 Jericho Oasis Aerial Photographs**

**Pierfrancesco Izzo**, University of Rome, La Sapienza  
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**ABSTRACT:** Archaeological analysis based on aerial photographs is a valuable tool not only to detect hidden archaeological elements in the subsoil without the aid of excavation, but also to understand how a specific territory has changed over the centuries and how the archaeological element has been influenced by this change. Thanks to the study of historical aerial photographs it is possible to identify sites, soil marks or possible lost remains that are not yet discovered or strongly damaged by human development and natural disasters. The twenty-two 1918 Luftstreitkräfte aerial photographs, used in this study, are available online on the APAAME Archive (<https://www.flickr.com/photos/apaame/sets/72157627596208984/>) or at the Archives of the Bavarian State, München.



**BIO:** Pierfrancesco Izzo is a PhD Student in Archeology at the Sapienza University of Rome. His research focuses on the Ancient Near East with an emphasis on the archaeology of the Southern Levant. His PhD project deals with the Endangered Archaeology in Palestine in collaboration with EAMENA Project, University of Oxford. He participated in excavations and surveys in the Palestinian areas (West Bank) at Tell es-Sultan/Jericho, Tell Abu Zarad and Bethlehem (Missions Director Lorenzo Nigro, Sapienza University).

### **Composing with the Ancient - a Roof for the Mosaics of the Hisham Palace**

**Rachele Lomurno** , PhD Student in Architecture, DICAR, Politecnico di Bari  
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**ABSTRACT:** It is undeniable that today there is a clear separation between the world of construction and the world of ruins. Although archaeological ruins can be considered fertile compared to science, they are now barren compared to architecture. Is it still possible for contemporary architects to offer a theoretical and design contribution to the important theme of composing with the Ancient? Through the study of good projects, such as that of Zumthor for Hisham's palace in Jericho, it is possible to answer this question in the affirmative way. In continuity with the Ruin, the project proposes a new architectural unit and does not reduce the necessity to protect the remains and mosaics to a purely technical intervention.

**BIO:** Rachele Lumorno graduated from DICAR in Bari in 2016, with a thesis in Architectural and Urban Composition entitled "Abandoned Cities. Mani Peninsula" achieving the valuation of 110/110. In 2015 and 2016 she obtained two scholarships for Erasmus placement mobility at the architectural firm "NAUTA" in Rotterdam and at Brighton University in Brighton. In 2017 she obtained the qualification to practice as an architect. In 2017 she obtained a scholarship for the PhD "Knowledge and Innovation in the Heritage project" at the DICAR of Bari, with a thesis, currently ongoing, entitled "Compose with the Ancient. Projects for the Imperial Forums and for the Mausoleum of Augustus".

### **Outside the Cradle of the Horticulture?**

#### **Olive Tree Cultivation during EBII-III at Tell es-Sultan /Jericho**

**Dr. Sharon Sabatini**, University of Rome, La Sapienza  
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**ABSTRACT:** During the last excavations at Tell es-Sultan/Jericho, led by the "La Sapienza" University of Rome, some paleobotanic evidence of *Olea europaea* were found in the dwelling quarter (Area F) and the palace (Area G) that shed new light on a possible olive tree cultivation in an area that should be outside the phytoclimatic zone of the natural growth of the olive tree. During the Early Bronze Age, in fact, olive tree cultivation begins to be practiced in the Southern Levant. It becomes to create complex productions systems and economic relations the management of which, closely related to its environment and climate, was one of the achievement of the first Palestinian urbanism in the III millennium BC.

**BIO:** Sharon Sabatini holds PhD in Ancient Near Eastern Archaeology from the "Sapienza" University of Rome with a research about olive tree cultivation and olive oil production in the Southern Levant during the Bronze Age. She is part of the staff of the "Sapienza" Archaeological Excavation to Jericho/Tell es-Sultan, directed by Prof. Lorenzo Nigro, since 2012 as objects cataloguer and photographer and in 2017 she worked as field director. She is also member of the staff of the Archaeological Excavation to Mozia (Sicily) since 2010, as objects cataloguer and photographer and logistic assistant of the excavation.